Working Paper No. 278

THE STATE AND POVERTY ALLEVIATION IN ADVANCED CAPITALIST DEMOCRACIES

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August 2001

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Word Count: 9,802

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The State and Poverty Alleviation in Advanced Capitalist Democracies

Abstract

We analyze the impact of the state on the incidence of poverty in the working-age population of 14 advanced capitalist democracies between 1970 and 1997 using an unbalanced panel design. We utilize poverty measures based on micro-level data from the Luxembourg Income Study in conjunction with pooled time series data from the Huber, Ragin and Stephens (1997) database. We argue that economic factors including de-industrialization and unemployment largely explain pre-tax, pre-transfer poverty rates of the working age population in advanced capitalist states. These rates, however, are theoretical as advanced democracies redistribute resources through taxes and transfers. We show that the extent of redistribution (measured as poverty reduction via taxes and transfers) is explained directly by welfare state generosity as well as constitutional structure (number of veto points) and the strength of the left, both in unions and in government.

The State and Poverty Alleviation in Advanced Capitalist Democracies

Alleviation of poverty is a widely recognized goal of social and economic policy in all advanced capitalist democracies. Although governments disagree on the extent that the state should intervene in citizen social welfare, all advanced industrial democracies have implemented a welfare state that serves as a mechanism of income redistribution (Esping-Andersen 1990; Kenworthy 1999; Korpi and Palme 1998). Researchers have found that the size of the welfare state (for example, as measured by spending on social programs) is a key determinant of poverty reduction; countries with the largest welfare states typically have the lowest post-transfer poverty rates (Kenworthy 1999; Kim 2000; McFate et al 1995; Smeeding et al. 2001). Social democratic welfare states generally have the lowest poverty rates because their generous transfer systems, dominated by social insurance programs, reduce market driven poverty. In contrast, poverty is highest and poverty reduction is lowest in the liberal welfare states, where overall expenditure is lower and means testing dominates state welfare programs (Goodin et al 1999; Korpi and Palme 1998).

Although researchers have recently begun to examine the predictors of cross-national poverty and the redistributive nature of the welfare state, their analyses are limited to cross-sectional data (Kenworthy 1999; Kim 2000; Korpi and Palme 1998) or case studies (e.g., Goodin et al. 1999). Furthermore, researchers have neglected to

examine the causal mechanisms explaining poverty rates across countries in terms of both market-based poverty (i.e., the rate of poverty characterizing the distribution of incomes prior to taxes and transfers) and reductions in poverty resulting from the tax/transfer system. This study overcomes these weaknesses. We examine the determinants of poverty in an analysis of unbalanced pooled cross sections and time series data on 14 advanced capitalist democracies between 1970 and 1997. We utilize measures of poverty in the working-age population based on micro-level data from the Luxembourg Income Study in conjunction with pooled time series data from the Huber, Ragin and Stephens (1997) database. We examine separately the determinants of pre tax and transfer poverty (or market based poverty), and the determinants of the reduction in poverty achieved by government taxes and transfers.

In this paper we distinguish between poverty as a feature of the distribution of income prior to taxes and transfer (which we call *pre tax and transfer poverty* or *market-based poverty*), and residual poverty that remains after taxes and transfer (which we call *post tax and transfer poverty*). We argue that market-based poverty and the reduction in poverty resulting from taxes and transfers are determined by different sets of factors. Market-based poverty rates are largely determined by a country's economic structure and the way it affects labor markets. Two principal factors of poverty in advanced capitalist states are de-industrialization and unemployment. De-industrialization is, in turn, a product of two distinct processes, post-industrialization and globalization. Unemployment, resulting from the long-term effects of de-industrialization, from economic cycles, or post Bretton Woods era economic malaise, also results in poverty

(Alderson and Nielsen forthcoming; Bluestone and Harrison 1982; Gottschalk and Joyce 1985; Gramlick and Laren 1984; Huber and Stephens 2001, Chapter 7).

However, labor markets are not the only determinants of poverty, as states redistribute income (Esping-Andersen 1990; Kenworthy 1999). Our approach to explaining the effectiveness of state redistribution efforts is based on power resource theory, which posits that the size of the welfare state and the extent of redistribution effected by it are determined by the balance of class power, often signified via union strength and left government. A strong left is associated with lower poverty and greater income equality within nations because left governments support labor organization and social welfare programs (Bradley et al 2001; Hicks and Misra 1993; Huber and Stephens 2001; Korpi 1983; Stephens 1979).

Furthermore, power resource theorists have demonstrated that for the left to have a sizable impact on the state, its structure must be compatible with welfare state development. Huber and Stephens (2000) found that constitutional structures with multiple veto points hinder the expansion of welfare states because they permit special interest groups to defeat legislation. Hence, we argue that both the strength of the left and the constitutional structure are important determinants of redistribution.[1] The next section expands on our discussion of the factors affecting market-based poverty and the reduction in poverty achieved by state action (taxes and transfers).

Theory and Hypotheses

Theories of poverty and welfare state redistribution have focused on three broad areas: the structure of the economy, including the impact of globalization; demographic and labor force characteristics; and labor market institutions, political power distribution, and state institutions.

Structure of the Economy and Globalization

Economic Development

Economic theories of cross-national variations in poverty are primarily derived from the inequality literature and view economic development, globalization, de-industrialization and cyclical changes in the economy as determining poverty rates. Development researchers contend that economic development is associated with lower inequality. Following Kuznets (1955), researchers have shown that as economies develop into advanced industrial economies, inequality declines (e.g., Nielsen and Alderson 1995).

Two mechanisms explaining the relationship between economic development and poverty are the diminishing agricultural sector and educational expansion (Alderson and Nielsen forthcoming). Agricultural employment is associated with higher poverty because it is associated with low productivity and wages. As economies modernize and industries expand, productivity and wages increase, yielding lower poverty. Furthermore,

modernization is associated with expanded educational opportunities. Higher education is necessary for laborers to compete in labor markets and command a living wage (Becker 1993; Jennings 1994). Furthermore, expanded education increases the supply of skilled and professional workers, decreasing the income gap between the skilled and unskilled (Nielsen and Alderson 1995). The most developed economies are characterized by high GDP, a small agricultural sector and high educational attainment of the population. These characteristics should generate lower market-based poverty.

The general expectation concerning effects of economic development on market-based poverty is that economic development should raise the average level of the entire distribution of incomes, reducing the size of the lower tail that is below the poverty line, however defined. However, some researchers have found that in the most advanced economies, particularly the United States, growth does not necessarily counter poverty because growth is slow, and since the 1970s real wage growth has not maintained pace with economic growth (Blank and Blinder 1986; Cutler and Katz 1991; Tobin 1994). If these researchers are correct, then the level of GDP should be unrelated to poverty in the advanced countries under examination here.

De-industrialization

Economic development has also changed the structures of production of the most developed countries in the direction of post-industrialism, that is, reduced industrial employment relative to service sector employment. As a result of differential productivity growth in the industrial and service sectors and the growing impact of a

world-wide division of labor ushered in by globalization (discussed below), employment in advanced economies has shifted from relatively high wage (and equal) industrial sector jobs to relatively low wage (and unequal) service sector jobs resulting in greater inequality and poverty (Alderson 1999). The service sector is more internally polarized than the industrial sector as it contains both well paid, high skill professional jobs and low paid, low skill jobs, such as those in personal services and the hotel and restaurant branch (e.g., Esping-Andersen 1999).[2] These shifts have resulted in greater competition and higher unemployment among the lower skilled populations and higher poverty rates in advanced democracies (Bluestone and Harrison 1982; Tobin 1994; Gottschalk and Joyce 1995; Gustafsson and Johansson 1999; Alderson and Nielsen forthcoming). Thus de-industrialization and the growth of the service sector associated with post-industrialism are expected to inflate the ranks of the poor.

Unemployment

Another important economic determinant of poverty is unemployment. The unemployment rate is strongly associated with market-based poverty because individuals experiencing unemployment suffer a loss or reduction of their income. Furthermore, real wages often decline during economic downturns, so that even workers who are able to keep their jobs may be more likely to fall below the poverty line during periods of high unemployment (Gramlick and Laren 1984; Keister and Moller 2000; McFate et al 1995). Interestingly, unemployment may be associated with *greater* redistribution. Since unemployment compensation is a component of all industrialized welfare states, as unemployment and economic need increase, the state replaces market income through

unemployment compensation and other social programs in greater amounts (Bradley et al 2001; Mäkinen 1999). Thus we expect that higher unemployment should be associated with (1) higher market-driven poverty, and (2) a greater *reduction* in poverty.

Three Aspects of Globalization

Advanced economies have become increasingly integrated in the international trade network during the last three decades (Alderson 1999). Three trends associated with globalization may have affected the location and shape of the distribution of incomes – and the incidence of poverty -- in developed nations: growing imports from non-industrial economies, capital outflow, and immigration.

Importation of manufactured goods from less developed nations places workers in industrial nations in direct competition with lower-paid workers in developing ones. As trade between nations increases, the wages and jobs of the least skilled workers in industrialized countries are threatened because they compete with lower paid workers in less developed countries (Wood 1994; Bradley et al 2001). This competition reduces wages and increases unemployment. Thus increased penetration by Southern imports is hypothesized to increase market-based poverty.

A second feature of globalization is the increasing capital mobility in the form of an outflow of capital from developed to developing economies (i.e., "capital flight"). This process exacerbates the de-industrialization process in core nations as corporations shift production from core countries to less developed countries that offer tax incentives and low-wage labor (Bluestone and Harrison 1982, p. 6). Capital mobility also enhances

the power of capitalists relative to the government and labor, undermining the bargaining power of labor. With increased capital flows and the ability to exit an economy, business may demand tax concessions from the government and wage concessions from organized labor (Alderson and Nielsen forthcoming; Bradley et al. 2001). Thus we expect capital mobility to be associated with greater market-based poverty.

The final component of globalization is increased labor mobility among nations, experienced by developed ones as a swelling flow of immigrants (Borjas 1994; Sassen 1998). A high rate of immigration has been associated with greater poverty (as well as inequality) in advanced economies because (1) immigrants have lower average skills than the resident population, and (2) the immigrant population is typically "bifurcated" into low skills and high skills components (Borjas, Freeman and Katz 1991; Haveman 1994; Alderson and Nielsen forthcoming). The influx of low skills migrants has been viewed as increasing poverty by displacing native workers and threatening their wages (although this relationship is contested: see Tienda and Liang 1994 for a review). Hence, migration is associated with greater poverty.

Based on these theories of globalization, we expect (1) market-based poverty rates will be higher in states with more open trade with less developed countries, more openness to capital flows and greater migration; and 2) poverty reduction will be negatively associated with capital openness.

Population and Labor Force Characteristics

Population and labor force characteristics are also theorized as important determinants of poverty rates and reductions resulting from taxes and transfers. Three important characteristics identified by the stratification and welfare state literatures are the size of the young population, family structure, and women's labor force participation.

Size of the Youth

Some researchers contend that a large youth population increases the burden on families and the state as they are a purely dependent population. Larger families typically have less disposable income and higher poverty rates, and states with larger dependent populations generally have higher poverty rates (Gustafsson and Johannson 1999; Smeeding et al 1988; Smeeding 1989).

Family Structure

Family structure is also an important predictor of poverty and poverty reduction. Researchers have found that single mother families with children under 18 have remarkably high poverty rates even if the mother is employed full-time (Casper et al. 1994; Kamerman 1984; Kilkey and Bradshaw 1999; McFate 1995; Smeeding 1989). Furthermore, generous welfare states do not necessarily reduce poverty in these families. The most effective programs are targeted toward single parents and are accompanied by special services, including child care and parental leave, that permit single mothers to

care for their families financially and domestically (Gornick et al 1997; McLanahan and Garfinkel 1995).

Women's Labor Force Participation

The rate of labor force participation by women is often viewed as an important determinant of both poverty and welfare state development. Nevertheless, authors disagree on the relationship between women's labor force participation and inequality (Thurow 1987; Cancian, Danziger and Gottschalk 1993; Nielsen and Alderson 1997). As women have entered the labor force, they have enhanced their abilities to both contribute to the family economy and independently raise families (Casper et al. 1994). However, if women are largely relegated to low wage employment, their joining the labor force may not reduce overall poverty, especially if they are attempting to maintain autonomous households (McFate 1995). Hence, the effect of women's labor force participation on pre tax/transfer poverty, while somewhat uncertain, is likely to be negative. The effect on redistribution is more straightforward. With increased employment of women, norms regarding maternal employment have shifted, women's political mobilization has increased, and their preferences for left parties and welfare state expansion have increased (Huber and Stephens 2000, 2001). In response to women's increasing demand for social support and child care, policies protecting mothers' employment and social welfare have expanded.

In consideration of these theories, we expect that (1) pre tax/transfer poverty rates will be higher in states with a larger young population and a larger single mother

population, and lower in states where women have higher labor force participation rates, and (2) poverty reduction will be greater in states with a larger labor force participation rate of women.

Labor Market Institutions, Political Power Distribution, and State Structure

Researchers have examined the relationship between labor market institutions and state spending cross-nationally, but there is only limited research on the relationship between labor market institutions and poverty rates. Standing (1995) has made a theoretical case that the needs of the most vulnerable in society are only accommodated when their voices are heard in the bargaining process. Without representation, labor is insecure and impoverishment is a potential consequence.

Unionization and Wage Bargaining Centralization

The most vulnerable achieve security in systems with strong unionization and centralized wage bargaining. Researchers have found that centralized bargaining is associated with more generous welfare states (Stephens 1979) and less wage dispersion (Iversen 1996; Wallerstein 1999; Pontusson et al. forthcoming). Furthermore, greater unionization increases welfare spending and reduces inequality (Alderson and Nielsen forthcoming; Gustafsson and Johanson 1999; Stephens 1979). As such, greater unionization and bargaining centralization should be associated with both lower pre tax and transfer poverty rates and greater reductions in poverty post tax and transfer.

Partisan Incumbency and Constitutional Veto Points

Partisan incumbency and state structure are also important determinants of poverty and redistribution. Huber and Stephens (2000, 2001) and Bradley et al. (2001) have illustrated the importance of these factors to redistribution, showing that the size of the welfare state is primarily determined by social democratic government, Christian democratic government and constitutional structure veto points. Social democratic governments are associated with more generous welfare states because they protect the interests of wage and salary earners. Christian democratic governments also have more generous welfare states because of their special interest in the welfare of families. However, since Christian democratic governments tend to promote citizen welfare within the context of the traditional family, and since a large proportion of the poor in all countries are single parents, Christian democratic welfare states should have a more limited impact on poverty reduction than social democratic welfare states (Hauser and Fischer 1990; Huber and Stephens 2000; Smeeding 1989).

Constitutional structure is also an important determinant of redistribution. A relatively large number of veto points in a country's constitutional structure depresses welfare state expansion or retrenchment as it enables relatively small groups to obstruct legislation (Huber and Stephens 2000, 2001; Bradley et al 2001). Hence, states with a larger number of veto points are less able to respond to increased citizen need. Based on these theories, we expect states with social democratic governments, Christian democratic governments and fewer veto points to achieve greater redistribution to the poorer segments of the population through the welfare state. Furthermore, since partisan

incumbency and state structure may influence poverty rates via other policies, including labor market policies not measured via the welfare state, we expect a direct relationship between these variables and market-driven poverty.

Welfare State Generosity and Targeting

Finally, the size of the welfare state is considered a key determinant of poverty as welfare states redistribute income (Bradley et al 2001; Esping-Andersen 1990; Smeeding et al 2001). This assumption, central to our argument, has been supported by cross-sectional comparative research (Goodin et al 1999; Kim 2000; Kenworthy 1999). Additionally, we expect that the targeting of welfare benefits will determine the extent of redistribution. Theoretically, means-tested programs should yield greater redistribution of income as they target vulnerable segments of the population. However, Korpi and Palme (1998) find that extreme targeting undermines redistribution. Interestingly, they also find that flat rate benefits also undermine redistribution. These authors argue that a combination of means-tested and earnings-related benefits is most effective because it both provides work incentives and prevents poverty traps.

The treatment of single mothers is also an important component of redistribution because single mothers are disproportionately represented among the poor in many countries (Smeeding 1989). To support the welfare of single mother families, programs must be established to support both their mothering and their working. These programs include child benefits, family allowances and maternity allowances (Gornick et al 1997; O'Connor 1999; Orloff 1996). Based on these assumptions and findings, we expect that

poverty reduction will be higher in states with: 1) a combination of means-tested and earnings-related benefits, and 2) a greater emphasis on family, child and maternity allowances.

Measures of Dependent and Independent Variables

The measures of poverty are derived from the Luxembourg Income Study (LIS) database, which provides the most comparable income and earnings data available across OECD countries.[3] LIS collects data from national microdata (i.e. survey data based on individual level data rather than macro aggregates) sources and harmonizes the data sets to make income comparisons across countries and over time possible. Currently, there are survey data available for 25 countries, and over time points ranging from 1 year to 7 years per country. LIS data are arranged by waves, with the first starting in the late 1970s and the most recent wave in the mid to late 1990s. There also exist historical data (pre-1979) for a handful of countries. The collection and harmonization of data in waves means that LIS data can be used to look at income trends, rather than single points in time only.

The poverty figures published on the LIS web site and in the many publications using the LIS data are not adequate for our purposes, as they include pensioners, which distorts the pre tax and transfer poverty rate and exaggerates the reduction in poverty. In countries with comprehensive public pension systems, such as the Nordic countries, which give the pensioner a replacement rate that is often three quarters of his or her

working income, pensioners make little other provision for retirement. For instance, in an analysis of LIS data, Mäkinen (1998) finds that 93% of Finns over 65 and 89% of Swedes in this age group are poor before transfers and only 4% and 2% are poor, respectively, after transfers are added in. Thus, we conducted our own analysis of the LIS micro data excluding those over 59 and under 25. This excludes most early pensioners and students as well, so the remaining population is clearly working-age.[4]

We constructed three measures of poverty: pre tax and transfer poverty, post tax and transfer poverty, and reduction in poverty effected by taxes and transfers (see Tables 1 and 2). For our measure of poverty we utilize a relative poverty rate. Researchers often debate the quality of various poverty measures. We follow most studies that use a relative measure of poverty (for example, see Casper et al. 1994; McFate et al 1995; Duncan et al. 1995; Korpi and Palme 1998). We measure poverty as the percent of the population in each country below 50 percent of adjusted median household income. Some authors argue that this relative measure does not permit an absolute comparison of the poor across countries because an absolute standard, independent of country specific economic growth and welfare effort, is not utilized (Kenworthy 1999). However, using an absolute measure of poverty, Kenworthy (1999) found that estimates of the reduction in poverty due to welfare effort were robust to the type of poverty measure implemented. Hence, we use the traditional relative measure of poverty.[5] The measure of redistribution is calculated as the percent reduction in poverty effected by taxes and transfers; reduction is calculated as [(1- post poverty rate / pre poverty rate)*100]. Our analyses focus on pre tax and transfer poverty and reductions in poverty due to taxes and transfers.

Pre tax and transfer poverty rates are calculated from market income: the total income from wages and salaries, self-employment income, property income, and private pension income. The post tax and transfer poverty rate is based on disposable personal income. This includes all market income, social transfers, and taxes.[6] Figures for both market income and disposable income were bottom coded at 1% of mean income adjusted for household size and composition. Because we are using an income concept based on households, adjustments had to be made for household size. Equivalence scales are used to adjust the number of persons in a household to an equivalent number of adults. If one chooses not to use an equivalence scale, one ignores the economies of scale resulting from sharing household expenses and assumes that each additional equivalent adult in a household has the same "cost" as other members of the household. We choose a commonly used scale of the square root of the number of persons in the household (see OECD 1995 for a discussion of equivalence scales).

Tables 1 and 2 About Here

The independent variables are gathered from various sources including the Huber, Ragin and Stephens (1997) data set, the Luxembourg Income Study (www.lis.ceps.lu), the OECD (various years) and the World Bank (2001; see table 1). We incorporate three measures of economic development: gross domestic product per capita, adjusted for purchasing power parities; agricultural employment, measured as the proportion of the civilian labor force employed in agriculture, and the spread of education, measured as secondary school enrollment as a percentage of the population of secondary school age.

We also include industrial employment as an indicator of de-industrialization. It is measured as the percent of the labor force in industry.

We measured three aspects of globalization: capital market openness, LDC imports, and the net migration rate.[7] Capital market openness is operationalized with the Quinn/Inclan measure of capital controls. The maximum score indicates no capital controls. LDC imports are measured as manufacturing imports from Standard International Trade Classification groups 5, 6, 7 and 8 from non-OECD countries as a percent of GDP (following Alderson and Nielsen forthcoming; OECD various years). The net migration rate is calculated as population growth adjusted for crude birth and death rates (following Alderson and Nielsen forthcoming; OECD 2001).

The measures of industrial employment, percent of the total labor force unemployed, female labor force participation, and percent of the population under 15 are self-explanatory. Single mother families are measured as the percent of all families with children under 18 headed by a woman.[8]

Labor market institutions are measured through union density and bargaining centralization. For union density, we use union membership as a percentage of total wage and salary earners (Ebbinghaus and Visser 1992). The bargaining centralization measure is Iversen's measure which weighs the level at which bargaining takes place (plant and firm level, industry level, national level) by the number of workers covered by agreements at that level. A higher score indicates more centralized bargaining.[9]

Political variables include party strength, constitutional structure (veto points), welfare generosity and targeting configurations. We coded the political variables, left-party government share and Christian democratic party government share, as "1" for each year that these parties were in government alone starting from 1946, and as a fraction of their seats in parliament of all governing parties' seats for coalition governments. Our measure of constitutional structure (presence of veto points) is an additive index of federalism (none, weak, strong), presidentialism (absent, present), bicameralism (absent, weak, strong), and the use of popular referenda as a normal element of the political process (absent, present). Thus, a high score indicates high dispersion of political power and the presence of multiple veto points in the political process.

Our proposed measure of welfare state generosity is strongly conditioned by the nature of the LIS data. The LIS post tax and transfer income distribution data measure disposable cash income. No effort was made to estimate the redistribution effects of the provision of free or subsidized public goods and services, a dimension of the welfare state on which the social democratic welfare state is most distinctive. Thus, variations in the funding and delivery of social services have no obvious effect on the measures of reduction in poverty we have calculated from the LIS data. Our measure of welfare state effort, "Taxes and Transfers", is the sum of the standard scores for total taxes as a percentage of GDP and transfer payments as a percentage of GDP (see Table 1). We standardize the two measures in order to weight them equally. Proportion means-tested and proportion family, child and maternity allowances were measured from the LIS microdata as the percent of social transfers associated with these different programs.

Fourteen of the eighteen large advanced industrial countries that have been democracies since at least World War II are included in the analysis. New Zealand and Japan are excluded as there are no LIS surveys for these countries. The one Austrian LIS survey is excluded due to the absence of LIS data for pre tax and transfer poverty, and the one Irish LIS survey is excluded due to missing data on bargaining centralization. The average values for the dependent variables and some of the independent variables are listed in Table 2 for the countries in the data set, grouped by welfare state regime.

Estimation techniques

Unbalanced panel data and correlated errors

We use an unbalanced panel data set with 61 observations on 14 countries, with countries providing different numbers of observations according to data availability, with a minimum of 1 and a maximum of 7 observations per country. The time span between observations is irregular, varying across countries and time points. A central problem in estimating regression models from panel data is that the assumption of independence of errors across observations is unlikely to be satisfied. As a result OLS produces incorrect standard errors for the regression coefficients (e.g., Hsiao 1986; Greene 1993).

There are several strategies to deal with correlated errors in panel data. One popular approach (exemplified by the Parks method) assumes unit specific serial correlation of the errors, as in a classical time series. As pointed out by Beck and Katz (1995:635-4) the Parks method and its extensions require what Stimson (1985) calls temporally dominated time series of cross sections, i.e. data structures consisting of relatively few units observed over many equally spaced time points. The small number of time points and the unequal spacing of observations in our data set do not support estimation of an autoregressive process. Another major approach is to estimate a random effect model (REM) in which the error term contains a unit specific component that differs across units (countries) but is constant over time for a given unit. Such an error structure would arise if unmeasured unit specific causes (such as systematic measurement differences, or aspects of the history or culture of a country) affect the dependent variable in the same way at each point in time over the period of the data. The stable unit specific component implies that observations for the same unit at different time points are all correlated by the same amount *Rho*. The REM strategy is feasible in this situation, and it allows estimating the value of *Rho*. But REM requires relatively strong assumptions and may not be optimal given the small sample size.

We chose an estimation approach that is appropriate to an estimation situation (like the present one) in which it is not essential to measure the correlation *Rho* of the errors pertaining to the same unit and that necessitates minimal assumptions on the behavior of the errors. It consists in combining OLS estimation of the regression coefficients with the Huber-White (or “sandwich”) robust estimator of the standard

errors. The robust estimator takes into account the correlations among errors associated with the "clustering" of observations pertaining to the same country (see the discussion in StataCorp 1999, User's Guide pp. 256-260). As an additional check we also estimated the models using a variant of the generalized linear model, available in the program STATA as procedure **xtgee**, that is equivalent to feasible generalized least squares estimation of the REM. In the discussion of the results we report when the OLS and REM estimates are substantially different.

Collinearity

As Huber, Ragin, and Stephens (1993) point out, collinearity is a serious problem in these data. Left cabinet, union density and bargaining centralization are highly intercorrelated which is not surprising since they are causally interrelated. Adding our taxes and transfers measure adds to the problem, as we tried to add it to regressions that include its own determinants including, among others, left cabinet. Left cabinet is at the center of this nexus; it is strongly correlated to union density (.80), bargaining centralization (.66), and taxes and transfers (.54). We set 5 as the maximum tolerable level of the variance inflation factor (VIF). This is more restrictive that the conventional 10 (though less so than Huber et al.'s, 1993 suggested level of 4) but we find considerable coefficient instability with variance inflation factors of greater than 5 (or tolerance levels of .2).

Model Building Strategy

To construct models for the two poverty variables, we first regressed each dependent variable on the economic development and labor force variables. We then conducted an F-test of the joint significance of all variables with significance less than .1 to see if they could be safely dropped from the model. We then added labor market institution variables to the reduced models and again conducted an F-test on dropping variables with significance less than .1. Finally, we added the political variables and conducted an F-test to determine the final model. We report in the tables the F tests using degrees of freedom equal to the number of clusters, but we also examined the tests using degrees of freedom equal to the total number of data points, which are more likely to conclude that a subset of variables is jointly significant. This further examination did not reverse any decision to drop a variable from the model. Our final models explain 60 percent of the variation in pre tax and transfer poverty rates and 90 percent of the variation in reduction in poverty resulting from taxes and transfers.

Results

Poverty rates and reductions in poverty are presented in Table 2 and Figure 1. In Figure 1, pre tax and transfer and post tax and transfer poverty rates are plotted for each country. The length of the line represents the amount of reduction in poverty due to taxes and transfers. As the figure illustrates and Table 2 corroborates, post tax and transfer poverty rates are lower than market-based (pre tax and transfer) poverty rates for all countries

studied. However, the extent of redistribution varies across countries. Countries with Christian democratic welfare states (excluding Germany and Switzerland) have the highest pre tax and transfer poverty rates, while countries with social democratic welfare states (excluding Denmark) have the lowest pre tax and transfer poverty rates. Belgium is the most successful state at reducing poverty, followed by Denmark and Finland. The least redistributive states are Switzerland and the United States. To assess the causes of poverty rates and redistribution, we estimate a series of regressions for market-based poverty rates and for reductions in poverty due to taxes and transfers.

Figure 1 About Here

The first set of analyses examines the determinants of market-based poverty rates (see Table 3). First, we examine the impact of economic development, globalization and de-industrialization on poverty. We find that de-industrialization measured through industrial employment has a significant negative impact on poverty rates, so that countries with lower industrial employment have higher poverty rates.

Table 3 About Here

Interestingly, measures of economic development, including gross domestic product, education and agricultural employment are non-significant determinants of market-based relative poverty rates. This finding supports researchers who contend that economic growth has lost its antipoverty effectiveness due to declining real wages and incremental growth (Blank and Blinder 1986; Cutler and Katz 1991; Tobin 1994).

The measures of globalization, including capital market openness, LDC imports and net migration are also non-significant determinants of market-based poverty. In separate regressions (not shown here) we found that LDC imports is significant when industrial employment is excluded from the model, and both LDC imports and net migration remain significant in the generalized least squares analysis when industrial employment is incorporated. These findings suggest that de-industrialization is one of the most important determinants of poverty rates in advanced capitalist democracies. Furthermore, the mixed results of LDC imports and net migration suggest that globalization and de-industrialization are interrelated. In fact, we find that the variables measuring economic development and globalization explain 52 percent of the variation in industrial employment. Globalization creates competition between industrial workers in core and developing countries, resulting in job loss and real wage reduction among workers in the core, particularly workers in industries (Wood 1994; Alderson and Nielsen forthcoming). Hence, industrial employment captures in part the indirect impact of globalization on workers' wages. Unemployment is also a key determinant of market-based poverty rates. Countries with higher unemployment typically have higher pre tax and transfer poverty rates.

As shown in Model 2, all measures of demographic and labor force characteristics are non-significant, suggesting that de-industrialization and unemployment are better determinants of market poverty rates than aggregate worker characteristics. An F test of dropping the variables with $p<.1$ in models 1 and 2 suggests that industrial employment and unemployment are the only variables in these models that explain a significant

amount of the variation in market-based poverty rates across nations. Dropping the other variables does not significantly reduce the explanatory power of the models.[10]

Model 3 adds labor market institution variables to the reduced version of Model 2. We find mixed support for hypotheses. Union density does not significantly impact market-driven poverty rates, but bargaining centralization is significantly negative. States with more centralized wage bargaining have less wage dispersion (Iversen 1996; Wallerstein 1999). Hence when bargaining is centralized and wages are less dispersed, relative market-based poverty rates are lower. Dropping unionization does not significantly reduce the explanatory power of the model. Hence, in model 4 we exclude unionization and incorporate political variables, none of which are significant. Again, an F-test suggests that the best fitting model predicting pre tax and transfer poverty rates is Model 5, that only includes industrial employment, unemployment and bargaining centralization. These three variables explain 63 percent of the variation in poverty rates. Interestingly, bargaining centralization is insignificant in this model. (Bargaining centralization is also insignificant when included in any xtgee model predicting market-driven poverty.) Labor force characteristics and politics do not explain this phenomenon.

In terms of our overarching theory, that economic structure, class power and politics explain poverty rates, we find partial support. In terms of the economic structure, de-industrialization is central. De-industrialization is a product of both post-industrialism and globalization. Globalization has numerous effects on industrialized nations including job loss and downward pressure on wages among industrial workers (Alderson and Nielsen forthcoming). With de-industrialization and higher unemployment, workers

experience real wage declines and higher poverty (see Bluestone and Harrison 1982). Furthermore, we find partial support for the impact of labor market institutions. When bargaining is centralized, wages are less likely to drop below 50 percent of the median income. Based on our analyses, politics do not generate rewards in terms of market income. As the next set of analyses will illustrate, though, political factors strongly affect poverty reduction.

Table 4 presents analyses predicting reductions in poverty resulting from taxes and transfers.[11] Model 1 incorporates economic, demographic and labor force variables. We find that in support of Huber and Stephens (2000), female labor force participation is a significant determinant of poverty reduction, suggesting that as women enter the labor force their political mobilization and left orientation increase. This increased power helps generate more redistributive welfare states.

Table 4 About Here

We also find the predicted effect of unemployment. States with higher unemployment have greater redistribution, because unemployment generates increases in welfare state expenditures and, at any given level of benefits, greater reduction of poverty. GDP and capital market openness do not influence redistribution suggesting that economic development and liberal economic policies do not offer business enough power to undermine the benefits of the welfare state. Although these variables do help explain redistribution, they jointly only explain 30 percent of the variation in redistribution. We reduce the model by dropping GDP and capital market openness. The

F-test demonstrates that dropping these variables does not significantly reduce the explanatory power of the model.[12]

Model 2 in Table 4 incorporates labor market institution variables. Including unionization and bargaining centralization increase the explanatory power of the model dramatically, from 31 percent to 60 percent. Countries with greater union density and bargaining centralization have more redistributive tax and transfer systems, although the coefficients are only marginally significant. This supports the power resource perspective, as the organizational power of wage and salary earners is an important determinant of redistribution. Interestingly, female labor force participation becomes non-significant when these variables are incorporated into the models. In the xtgee model, female labor force participation remains significant and bargaining centralization becomes non-significant. We contend that this finding is related to collinearity within the model. Female labor force participation is correlated at .48 with union density, and union density is correlated at .57 with bargaining centralization. Although the tolerances of the corresponding variables are within reasonable bounds, we believe that the non-significant effect of female labor force participation is attributable to collinearity. In reducing the model, however, we chose to keep union density and bargaining centralization and drop female labor force participation because this reduced model is the better predictor of poverty reduction.

Model 3 incorporates political variables into the model. Left cabinet significantly determines redistribution. States with longer left party incumbency have more generous welfare states and greater reductions in poverty due to taxes and transfers. Again, this

measure of left strength is highly correlated with the measures associated with labor market institutions. Left cabinet is associated with union density at .8 and bargaining centralization at .66. An F-test permits us to drop the two labor market institution variables from the model. However, all of the models in Table 4 point to a similar explanation of redistribution: the balance of class power is important. Whether measured as union density, bargaining centralization or left cabinet, we find significant and substantial results when measures of power constellations are incorporated in the models. Model 3 also supports Huber and Stephens (2000) finding that constitutional structure determines welfare state effort and as a result influences redistribution. States with more veto points achieve lower reductions in poverty through the tax and transfer system, even after controlling for the generosity of welfare in states. Hence, power dispersion through the constitutional structure impacts the welfare of citizens in countries.

We also find that welfare state generosity significantly determines the extent of redistribution. As expected, countries with more generous welfare states have greater reductions in poverty resulting from the tax and transfer systems. Model 4 drops Christian democratic government and labor market institution variables because they are non-significant at $p<.1$ and their exclusion does not significantly reduce the explanatory power of the model. Model 4 also includes a measure of policy type. Proportion means-tested is non-significant in model 4, suggesting that the extent of means-testing of social transfers does not linearly predict reductions in poverty.

However, as model 5 illustrates, the proportion of social transfers that are child, family and maternity allowances does significantly determine reductions in poverty. States that offer a greater proportion of family, maternity and child allowances experience greater reductions in poverty from taxes and transfers. This supports the assertion by gender theorists that states must serve the needs of families, and not just workers, to overcome inequalities in society (O'Connor 1999; Orloff 1996). This final model explains a remarkable 90 percent of the variation in poverty reduction.

Conclusions

These findings have important implications for theory and policy. First, market-based poverty in advanced industrial countries is determined primarily by the economic structure, as shifts in the economy are associated with declining employment opportunities among workers in industrialized countries. As advanced economies have become more global and de-industrialization has progressed, industrial employment has diminished and unemployment has risen, particularly among workers with fewer skills (Bluestone and Harrison 1982). In our analysis these factors explain 60 percent of the variation in market-based poverty rates across advanced industrialized countries and over time.

But, our findings illustrate that intervention is possible. Before taxes and transfers are offered to families, the average poverty rate across these countries is 16 percent, ranging from 10 percent in Germany to a remarkably high 22 percent in France. After

taxes and transfers are incorporated as income, the average poverty rate is sliced in half, and the ends of the range drop dramatically to a low of 3 percent in Finland to a high of 15 percent in the United States. Remarkably, the difference between the two ends of the range remains at 12 percent, while the ordering of countries changes, indicating great variation in redistribution effected.

We find that the state and the balance of class power are central determinants of redistribution. When states spend more of their financial resources on citizen welfare, poverty is reduced. Poverty is reduced further when these resources are devoted to child, family and maternity allowances, as opposed to means-tested benefits. If governments want to attack poverty directly, they must invest in these more effective programs.

What the state does in the area of welfare state expenditures is politically determined. Working men and women can affect the extent to which market-generated poverty is reduced through mobilization. When they mobilize in unions and parties and effectively influence bargaining and politics, they may help generate a reduction in poverty and yield a more equitable distribution of income in countries. As such, the balance of class power is a central component of poverty. But, it is important to note that poverty reduction is the most effective in states with constitutional structures that have a limited number of veto points. These structures prevent minorities from obstructing legislation that supports the majority (Huber and Stephens 2001).

Our research has advanced our understanding of poverty and redistribution in industrialized democracies. The few studies that have examined the relationship between

the welfare state and poverty have not systematically tested theoretical explanations for the relationship, nor have they offered a quantitative account of it. Our analyses of an unbalanced pooled time series data set have shown that de-industrialization, the state and power resources determine the welfare of citizens by shaping their market income and the extent that states redistribute through taxes and transfers.

[1] The emphasis on state structure in new waves of power resource theory is heavily influenced by statist and new institutional theorists who highlighted the importance of structure to welfare state development (Skocpol 1992; Skocpol and Amenta 1986).

[2] Esping-Andersen (1999: 298 ff.) points out that the size and composition of the service sector vary not only as a result of economic development but also as a result of cross national differences in politics and labor market institutions.

[3] See http://www.lis.ceps.lu for a general introduction to the LIS database and a complete list of countries, years, and variables available in this rich data source.

[4] Critics of the welfare state posit that welfare states effect only life cycle redistributions of income and not redistribution across income classes. By limiting the analysis to the working age population, we assure that our measure does measure redistribution across income groups.

[5] The authors have begun a study of absolute poverty and have found interesting differences, although our theoretical argument is supported by the analysis.

[6] See http://lisweb.ceps.lu/techdoc/variabdef.htm for a summary of LIS income variables.

[7] The authors tested the influence of capital controls versus flows and found that capital controls is a better determinant of redistribution (see Bradley et al 2001).

[8] In married couple households with females listed as the head of the household, LIS recoded the data to always have married couple households headed by a male.

[9] Bradley et al. (2001) considered two other measures of labor market institutions which Wallerstein (1999) found to be strongly related to wage dispersion, the level of wage setting and the Herfindahl index of concentration within confederations. They tested the impact of Wallerstein's and Iversen's measures on inequality and found that Wallerstein's measure performed no better on the pre tax and transfer inequality on which they expected strong effects of labor market institutions. Furthermore, Wallerstein's measure includes both labor market and political components and we want to separate these effects.

[10]Tables 3 and 4 include an F-test to determine if variables can be dropped from the models. We report the procedure calculated by STATA where the degrees of freedom are determined through the formula F(p-q, k-p), where p and q are the number of independent variables (including the constant) in the full and reduced models, respectively. K represents the number of clusters (i.e., states). Clusters are used rather than the number of cases, because only cases in separate clusters are truly independent. We replicated these tests using F(p-q, n-p) with the traditional degrees of freedom, where n is the total number of cases. We only dropped variables that were jointly non-significant with respect to both tests.

[11] Some of the variables hypothesized to affect pre tax and transfer poverty have no necessary relationship to governmental reduction in poverty. Given the absence of a theoretical justification for their inclusion, we do not include education, agricultural employment, migration, third world imports and de-industrialization in our analyses of poverty reduction.

[12]We do not drop single mother families because this variable is significant at $p<.1$ and dropping this variable significantly reduces the explanatory power of the model when the degrees of freedom are calculated as F(p-q, n-p) (see previous note). We also tested the impact of youth on poverty reduction and found great instability in the models and an unacceptably high VIF. Therefore, we do not report those findings. Although, it is important to note that incorporating youth does not change the results in the final reduced model (model 5).

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TABLE 1. Variable Descriptions and Proposed Effects

		Proposed impact on:	
Variables	Description	Pre Poverty	Poverty Reduction
Dependent Variables			
Pre Poverty	Pre tax/transfer poverty - Age 25-59: Percentage of households in which the household head is between 24 and 60 with disposable incomes below 50% of the average disposable household income before taxes and transfers (LIS)		
Poverty Reduction	percent reduction in poverty effected by taxes and transfers, Age 25-59 [(1- post poverty rate / pre poverty rate)x100] (LIS)		
Structure of Economy and Globalization			
Economic Development			
GDP	Gross Domestic Product per capita adjusted for PPPs (HRS; OECD)	-	+
Education	Secondary school enrollment as a percentage of the population of secondary school age (World Bank)	-	N/A
Agricultural Employment	Proportion of civilian labor force employed in agriculture (HRS)	+	N/A
De-industrialization			
Industrial Employment	% of the labor force in industrial employment (HRS, OECD)	-	N/A
Unemployment			
Unemployment	Unemployment: Percentage of total labor force unemployed (HRS, OECD)	+	+
Globalization			
Capital Market Openness	Liberalness of capital controls (Quinn and Inclan 1997)	+	-
LDC Imports	Imports from non OECD countries as a % of GDP (OECD)	+	N/A
Migration	population growth per 1000 population - (birth rate - death rate) (World Bank)	+	N/A
Population and Labor Force Characteristics			
Youth	% of the population under 15 years of age (HRS, OECD)	+	N/A
Family Structure	Percent of families with children under 18 with a female head (LIS)	+	-
Women's Labor Force Participation	Female labor force participation: Percentage of women age 15 to 64 in the labor force (HRS, OECD)	-	+
Labor Market Institutions, Political Power Distribution, and State Structure			
Unionization and Wage Bargaining Centralization			
Union Density	Union density: Union membership as a percentage of total wage and salary earners (HRS, Ebbinghaus and Visser 1992)	-	+
Bargaining Centralization	Degree of centralization of wage bargaining (Iversen 1998)	-	+
Partisan Incumbency and Constitutional Veto Points			
Left Cabinet	Left Cabinet: Scored 1 for each year when the left is in government alone, scored as a fraction of the left's seats in parliament of all governing parties' seats for coalition governments, 1946 to date (HRS).	-	+
Christian Democratic Cabinet	Christian Democratic Cabinet: Religious parties' government share, coded as for left cabinet (HRS)	-	+
Constitutional Structure	Constitutional Structure: Veto points created by constitutional provisions (HRS)	+	-
Welfare State Generosity and Targeting			
Welfare Generosity	Welfare state generosity: summation of the standardized values of the following indicators of welfare state effort: Government revenue as a percentage of GDP (HRS, OECD); Social security transfers as a percentage of GDP (HRS, OECD);	N/A	+
Means-Tested Benefits	Percent of social transfers that are means-tested (LIS)	N/A	+
Child, Family and Maternity Allowanc	Percent of social transfers that are child, family and maternity allowances (LIS)	N/A	+

Notes: HRS: Data from the Huber, Ragin, and Stephens (1997) data set. OECD: Original data source is OECD (various years).
LIS: Luxembourg Income Study (www.lis.ceps.lu)

Table 2. Mean Values of Selected Variables by Country

	Pre Tax and Transfer Poverty	Post Tax and Transfer Poverty	Reduction in Poverty Due to Taxes and Transfers	Welfare Generosity	Left Cabinet	Percent in Industry	Unemploy
Social Democratic Welfare State							
Sweden	14.8	4.8	64.5	1.6	32	30.6	3.4
Norway	12.4	4.0	67.2	0.8	32	24.8	3.6
Denmark	17.2	4.8	71.5	2.0	25	25.5	7.2
Finland	12.1	3.4	69.1	1.4	19	26.4	10.1
Christian Democratic Welfare States							
Belgium	19.5	4.1	78.8	2.1	13	25.0	11.0
Netherland	18.5	6.1	66.9	3.1	10	23.2	8.8
Germany	9.7	5.1	46.9	0.1	11	39.1	5.7
France	21.8	9.1	57.9	1.1	7	28.6	8.9
Italy	19.7	11.5	42.8	0.2	5	28.5	11.4
Switzerland	10.5	9.1	13.0	-1.7	11	32.8	1.7
Liberal Welfare States							
Australia	16.1	9.2	42.2	-2.5	12	24.7	7.2
Canada	17.1	11.9	29.9	-1.7	0	24.2	8.3
UK	16.4	8.2	48.7	-1.4	14	33.0	6.1
USA	17.1	15.1	12.1	-2.4	0	25.4	6.0
Mean	15.9	7.9	49.1	0.0	13	28.6	6.9

Table 3. Coefficients from OLS Regressions of Pre Tax and Transfer Poverty on Selected Independent Variables; Huber-White Robust Error Estimates (t-values in parentheses)

Independent Variables	Model 1	Model 2	Model 3	Model 4	Model 5
Economic Development					
GDP	0.20	--	--	--	--
	(-.11)				
Education	-0.02	--	--	--	--
	(-0.44)				
Agricultural Employment	-0.40	--	--	--	--
	(-1.34)				
Globalization					
Capital Market Openness	-0.25	--	--	--	--
	(-0.36)				
LDC Imports	-45.39	--	--	--	--
	(-0.47)				
Migration	-0.11	--	--	--	--
	(-0.65)				
Labor Market Shifts					
Industrial Employment	-0.35 **	-0.29 *	-0.32 ***	-0.30 ***	-0.31 ***
	(-2.57)	(-2.13)	(-3.4)	(-3.25)	(-3.52)
Unemployment	0.68 **	0.68 *	0.57 **	0.54 *	0.57 **
	(3.04)	(2.21)	(2.99)	(1.98)	(2.96)
Labor Force and Population Characteristics					
Single Mother Families	--	0.13	--	--	--
		(.68)			
Youth	--	0.18	--	--	--
		(.78)			
Female Labor Force Participation	--	-0.06	--	--	--
		(-.56)			
Labor Market Institutions					
Union Density	--	--	-0.02	--	--
			(-0.50)		
Bargaining Centralization	--	--	-3.80 *	-7.50 *	-5.41
			(-1.68)	(-2.18)	(-1.64)
Political Variables					
Left Cabinet	--	--	--	0.02	--
				(0.30)	
Christian Democratic Cabinet	--	--	--	0.01	--
				(0.14)	
Constitutional Structure	--	--	--	-0.29	--
				(-1.06)	
Constant	27.30 ***	18.08	22.92 ***	23.03 ***	22.29 ***
	(3.46)	(1.45)	(3.85)	(4.78)	(6.07)
R^2	0.63	0.63	0.64	0.65	0.63
Test of Dropping Variables, p<.1	F(6,13)=.4	F(3,13)=1.	F(1,13)=.2	F(3,13)=1.	

*** p<.001, ** p<.01, * p<.05, (1-tailed tests)

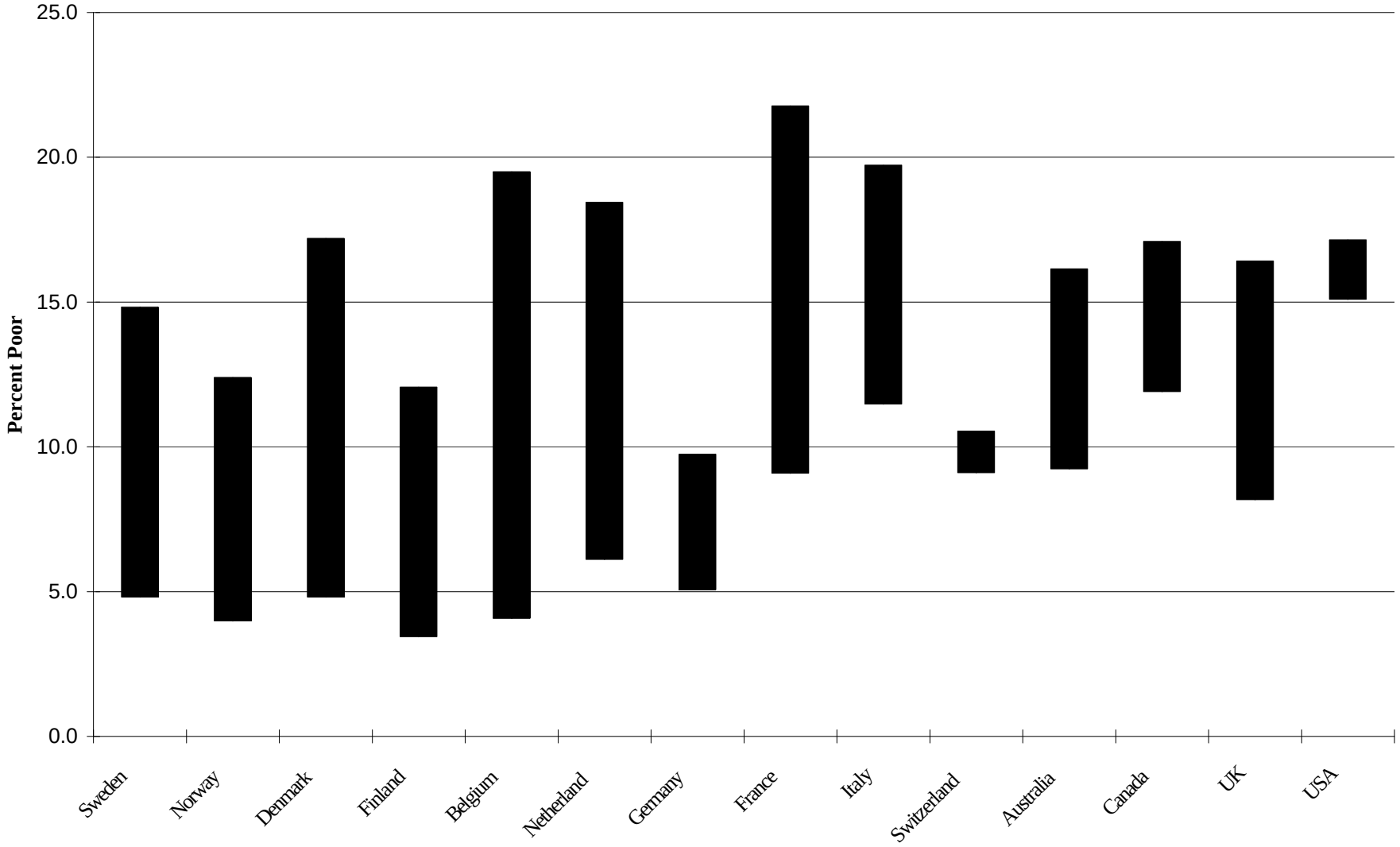
N=61

Table 4. Coefficients from OLS Regressions of Reduction in Poverty Resulting from Taxes and Transfers on Selected Independent Variables; Huber-White Robust Error Estimates (t-values in parentheses)

Independent Variables	Model 1	Model 2	Model 3	Model 4	Model 5
Economic, Demographic and Labor Force Characteristics					
GDP	-0.72	--	--	--	--
	(-.87)				
Capital Market Openness	-0.56	--	--	--	--
	(-.13)				
Unemployment	2.88 *	2.85 ***	1.49 **	1.37 **	1.40 ***
	(2.28)	(3.82)	(2.57)	(2.75)	(3.66)
Single Mother Families	-2.05	-1.14	--	--	--
	(-1.49)	(-1.25)			
Female Labor Force Participation	1.41 *	0.45	--	--	--
	(2.19)	(1.02)			
Labor Market Institutions					
Union Density	--	0.35 *	0.01	--	--
		(1.71)	(.10)		
Bargaining Centralization	--	43.99 *	9.60	--	--
		(2.01)	(.94)		
Political Variables					
Left Cabinet	--	--	0.66 ***	0.74 ***	0.76 ***
			(4.02)	(6.03)	(7.19)
Christian Democratic Cabinet	--	--	-0.03	--	--
			(-.16)		
Constitutional Structure	--	--	-2.36 **	-2.20 **	-1.49 ***
			(-2.46)	(-2.78)	(-3.39)
Welfare Generosity	--	--	5.15 ***	5.22 ***	5.11 ***
			(4.05)	(5.55)	(7.07)
Proportion Means-Tested	--	--	--	-0.15	--
				(-1.28)	
Proportion Child, Family and Maternity Allowances	--	--	--	--	0.17 ***
					(3.48)
Constant	-19.05	-10.05	32.23 ***	36.48 ***	25.31 ***
	(-.62)	(-.63)	(4.54)	(6.91)	(4.47)
R^2	0.31	0.60	0.87	0.88	0.90
Test of Dropping Variables, p<.1	F(2,13)=.53	F(2,13)=.78	F(3,13)=.36	F(1,13)=1.63	

*** p<.001, ** p<.01, * p<.05 (1-tailed tests)

Figure 1. Reductions in Poverty Due to Taxes and Transfers



Appendix A. Correlation Matrix

	Pre Tax/Transfer Poverty	Post Tax/Transfer Poverty	Reduction in Poverty Due to Taxes and Transfers	Welfare Generosity	Left Cabinet	Christian Dem Cabinet	Constitutional Structure	Capital Market Openness	LDC Imports	Percent in Industry	Youth	Single Mother Families	Unemploy	Female Labor Force	Union Density	Bargaining Centralization
Pre Tax/Transfer Poverty	1.00															
Post Tax/Transfer Poverty	0.45	1.00														
Poverty Reduction	0.17	-0.78	1.00													
Welfare Generosity	0.21	-0.63	0.84	1.00												
Left Cabinet	-0.15	-0.69	0.68	0.53	1.00											
Christian Dem Cabinet	0.06	-0.14	0.17	0.40	-0.20	1.00										
Constitutional Structure	-0.18	0.39	-0.62	-0.45	-0.42	0.04	1.00									
Capital Market Openness	0.28	0.21	-0.08	0.13	-0.11	0.26	0.36	1.00								
LDC Imports	0.33	-0.10	0.32	0.29	0.12	0.33	-0.04	0.36	1.00							
Percent in Industry	-0.66	-0.28	-0.18	-0.19	-0.05	0.11	0.12	-0.29	-0.43	1.00						
Youth	0.00	0.38	-0.42	-0.55	-0.33	-0.59	0.07	-0.39	-0.40	0.01	1.00					
Single Mother Families	0.22	0.29	-0.11	-0.10	0.24	-0.50	0.16	0.38	0.19	-0.54	0.06	1.00				
Unemployment	0.69	0.16	0.29	0.28	-0.25	0.32	-0.14	0.36	0.36	-0.53	-0.27	-0.04	1.00			
Female Labor Force	0.02	-0.10	0.17	0.13	0.54	-0.60	-0.06	0.10	0.11	-0.41	-0.11	0.73	-0.17	1.00		
Union Density	-0.23	-0.64	0.59	0.43	0.80	-0.17	-0.40	-0.22	0.04	0.00	-0.24	0.11	-0.13	0.48	1.00	
Bargaining Centralization	-0.36	-0.63	0.49	0.42	0.66	0.08	-0.24	-0.22	0.05	0.12	-0.25	-0.08	-0.28	0.14	0.57	1.00